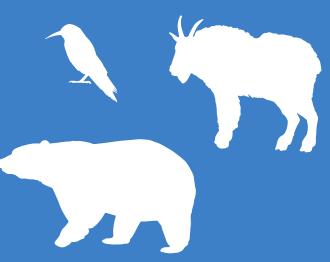


Inside:

Let's Explore Idaho's Mountains! **Fishing High Mountain Lakes Stocking High Mountain Lakes High Mountain Wildlife Hiking in Bear Country** Clark's Nutcracker **American Dipper**



Hourglass Lake CCBY IDFG



idfg.idaho.gov



Summer is here! It is time to get out and discover all Idaho has to offer. We are lucky to have some of the most beautiful places in the world to explore. All we have to do is head to the mountains, strap on a pack and lace up a pair of boots.

Idaho's mountain ranges are scenic beauties. They have unique animals and features not found at lower elevations. In this issue of Wildlife Express, we will discover what can be found around these gems. They are worth the time and effort to investigate.

Before you run to the mountains there are a few things to consider. High mountains are beautiful, special places, but they are also places that can be challenging. You need to be prepared and think about more than just a tent and sleeping bag.

Look at maps of the areas you want to hike. The type of map you want to look at is a topographic map. The map will not only help you figure out the length of a hike. It will also help you figure out if the trail is steep or has a gradual climb. This type of map uses lines to show elevation changes, called contour lines. The closer the lines are together the steeper the slope and harder the hike.

Exploring mountains means considering how fit you are and how hard you want to work. Remember you will be hiking up and down some steep trails. This will be a workout for your muscles, heart and lungs. If you have been a couch potato for the last year, start with walks around your neighborhood then move on to shorter day hikes. Save the longer, steep hikes for when you are in better shape.

The gear you take with you is also important. The most important piece of equipment you need is a good pair of boots. Sneakers might work for short, easy day hikes but not for longer hikes. When trying on boots, you want boots that are a bit stiff for the support needed for longer hikes. Never hike in new boots without breaking them in first! Wear them around the house and for short walks to loosen them up. If you skip this step, you will have feet covered in blisters. This will make your trip miserable. It is also important to keep your feet dry by wearing wool or moisture-wicking socks.



Pack clothes that you can layer and make sure one of those layers is waterproof. Weather can change quickly in the mountains. It is not uncommon to get afternoon thunderstorms or even the occasional snow shower in July.

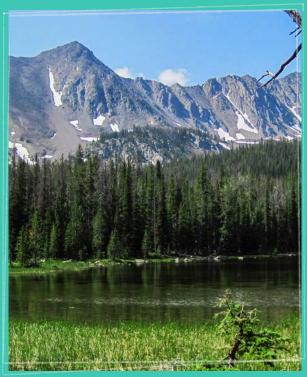
Never drink water straight from a stream or lake! It may contain parasites, viruses or bacteria that can make you very sick. A good water filter is a must to clean the water you drink. Water weighs a lot; you do not want to carry a ton of water. A 32 ounce water bottle that you can fill with filtered water throughout your trip might be all you need.

Don't forget nutritious food to give your body the fuel it will need. Pack food that is light-weight, easy to prepare and eat. Vacuum-sealed pouches of tuna and chicken and individual packets of peanut or almond butter are great choices. Nuts and dried fruits are staples for many hikers, but fresh foods can be a real treat. Carrots, snap peas, oranges and apples will last for a few days. Dehydrated food might come in handy but can be pricey.

Don't forget a good backpack to carry your gear. A pack with a waist strap will help take the load off your shoulders and back. Most of the weight of a pack should be carried on your hips not your shoulders.

With preparation and the right gear, exploring Idaho's higher elevations will be easy and enjoyable. Lace up those boots and strap on that pack. Exciting experiences and splendid sights are waiting in Idaho's mountains!





Idaho has over 3,000 high mountain lakes! Some lakes are easy to find along marked trails; others may require a bit of bushwhacking to locate. These lakes offer opportunities that are not found at lower elevation lakes.

To help anglers find these special places, Idaho Fish and Game has made the Idaho Fishing Planner. The Fishing Planner is located on Idaho Fish and Game's website. https://idfg.idaho.gov/ On the website home page, scan down to the bottom and click on the Idaho Fishing Planner logo. Once you are on the Fishing Planner homepage, locate Filter Waters on the left of the page and click on it. You will see the heading Water Body. Click on Water Body and then click on High Mountain Lake.

There are 2,610 high mountain lakes listed on the Fishing Planner! You will find information such as the lake's name, its river drainage, its county location and its size. Click on the name and you find even more information. A map will show the lake's location and elevation. You can even see if the lake has been stocked with fish. Stocking records will list the species, date, number and size of the fish stocked. Most high mountain lakes are stocked with fingerlings. These fish are about the size of an adult's finger. It will take three to four years for them to grow to a catchable size, so keep this in mind when looking at stocking records. Some lakes have been surveyed to see what species live in the lake. This information will also be listed.

Photos CCBY IDFO

You really do not need any special gear to fish high mountain lakes, but there are a few things that might make it easier. A fishing rod that breaks down into three pieces will be easier to pack. Some anglers like to pack float tubes or inflatable canoes. These make it easier to reach deeper water found beyond the shallow edge but add weight. You may want to skip packing inflatables on longer trips.

It can be thrilling to fish high mountain lakes. The fish are hungry. They need to pack on as much weight as they can before the lake freezes over. Fish are usually very active and may bite at almost every cast! You might even get the opportunity to catch a beautiful Arctic grayling. Venture to the mountains this summer and see for yourself. The fishing is fun!







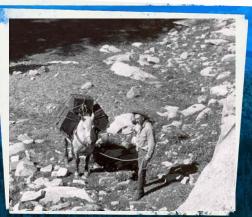


Stocking High Mountain Lakes

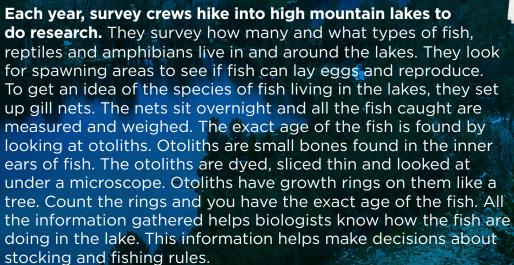
High mountain lakes are found in some harsh environments. In such isolated locations, how did fish find their way to these lakes? People put them there. Idaho Fish and Game is always looking for ways to enhance and create sport fishing opportunities. Placing fish in high mountain lakes gives anglers one more opportunity.

Transferring a load of fish from automobile transportation horse equipment,

Stocking a lake at 9,000 feet elevation is no easy task! Many methods have been utilized to get fish to these remote places. Hikers, horses, mules, airplanes and helicopters have all been used over the years. Fish have been transported in milk cans, canvas bags and plastic bags. In the 1920s, ten-gallon milk cans were loaded on mules to bring young fish to lakes in the Sawtooth Mountains. Each milk can could hold just one pound of one-inch long fry. By 1938, experiments began to drop fish from airplanes. This is the method used most often today. Each year around 200,000 fish are stocked in high mountain lakes. It takes a skilled pilot to maneuver close to a lake to drop fish and avoid crashing into mountain peaks.



Fish are not just put into any lake. Biologists study a lake to see if fish can survive in it. One thing they look at is fish food. Young fish eat small zooplankton; older fish will need aquatic insects. The number of zooplankton in a lake will determine how many fingerlings to stock. The amount of food also affects how quickly fish will grow.







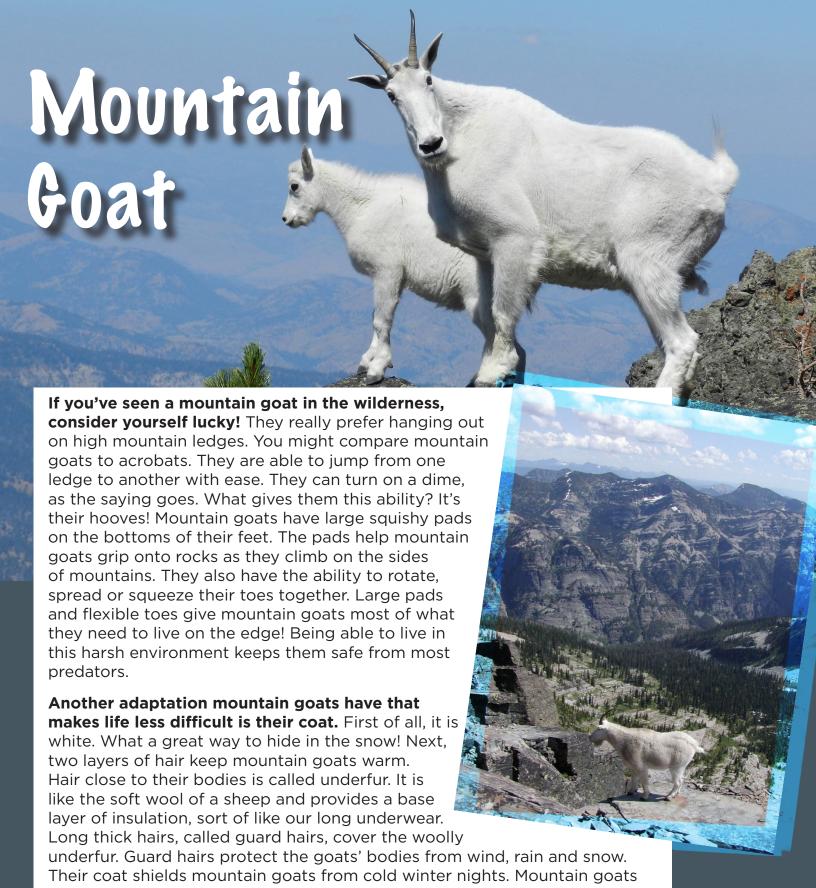


We are so fortunate to be able to spend time in Idaho's mountains. We need to be prepared when in the mountains to be safe and comfortable. Think about the animals living there. They also need certain things to survive. High elevations are cold and can have extreme weather. There are steep cliffs and food is sometimes scarce. An animal's adaptations help it survive in this harsh habitat. Adaptations can be physical or behavioral. When you put on a coat, it's a behavioral adaptation. When an animal has a coat designed for the cold, it's a physical adaptation. Animals need a combination of behavioral and physical adaptations to survive in high mountains ecosystems.

Studying animals in high mountains can be difficult. Not only is it challenging to get to an area, biologists have to deal with storms and rockslides. Often trails are not free of snow until mid-June. This leaves only a few short months to get things done. Even with the difficulties, we have learned a lot. On the next pages you can read about some animals that live at high elevations and the special adaptations that help them survive.







begin shedding their winter coat in late spring. You may see a goat that looks shaggy. Mountain goats can't take off their coats like a jacket in one big piece. It comes off in chunks. They rub against trees, leaving behind fluffy balls of fur.

Mountain goats are named perfectly for the location in which they live!



Wolverines are one of the rarest mammals in North America.

Wolverines need snowy areas where the temperatures are cool. They live in remote, high-elevation forests away from humans. They are about the size of a bear cub and have long brown fur with light buff or yellow stripes that run from their noses down to the sides of their tails. This long, thick coat of fur makes it easy for them to get too hot. This is one reason why, a wolverine that wants to get from one mountain to another, will usually walk the tops or ridges of the mountains instead of going down into the warmer valleys. Wolverines use snow dens to rear their young. A female will dig a den, sometimes up to 10 feet long, to give birth to her kits. Her long claws make this possible.



make living in high mountains look easy. They can travel up to 15 miles a day. When food is scarce in the winter, wolverines need to be able to move to find food. Moving in the snow is made easier by broad paws which work like snowshoes. If you've ever walked in deep snow, you know how tired it can make you. Strong paws keep wolverines on top of the snow and allow them to go great distances. Wolverines will eat roots and berries, but they prefer meat. While they will hunt, they tend to take the easier way of eating carrion, or dead animals. This lets them fill their stomachs without using a lot of energy. A great sense of smell helps them to find carrion that is buried under snow. Once wolverines find a dead animal, they have powerful jaw muscles that allow them to eat frozen meat and break bones.

Wolverines' strength and stamina



Wolverines in Idaho cannot be hunted or trapped, but seeing one in the wild would be a treat!

Photos top to bottom:

Wolverine in summer stock image, Wolverine in winter composite stock image, Wolverine emerging from trap CCBY IDFG.



While hiking in Idaho's high mountains you may hear calls of many animals, big and small. If you hear this unique sound, you may wonder what it is. "BEE-JEE!" it says as you

jump a little. The call is so loud it could have come from a large, dangerous creature. "BEE-JEE!" it says again. Look as you might, you cannot find the animal. This animal is a master at hiding. The animal with the loud warning cry is not large or dangerous. Instead. it is a rather cute animal called an American pika (PIE-ka). Pikas



are related to rabbits, but they look a bit different. Pikas' bodies are round and small - about the size of

a guinea pig. They have shorter, rounded ears and no tails. They live in colonies to help protect them from danger. When calling "BEE-JEE," they were probably warning others of your presence.



Pikas are very protective of their dens even from other colony members.

These animals do not hibernate! They cache (cash) or store food in the den to help them survive the winter. It's quite a job for little pikas to gather all the food they need and dry it out so it won't mold before cashing it away. Pikas don't want to share food with others after all their hard work.

Pikas can be found across Idaho at high elevations. They live in and around

boulder-covered rock slides called talus. Talus might not seem like a great place to live. For humans, the pointed, ragged rocks make it difficult and dangerous to be around. Pikas use the talus to escape from predators and nasty weather. The piled up rocks make perfect pika-sized caves and tunnels to escape weasels, coyotes and hawks. Talus also makes the perfect shelter. Air is trapped between the rocks. The air, along with a thick layer of snow, insulate pikas from sub-zero temperatures in the winter. During the summer, the rocks offer cool shade. Talus is a wise choice for pikas.



Scientists studying pikas know that things are changing for the species.

Climate change has caused warming of the slopes that pikas call home. Pikas just cannot take the heat. Even temperatures of 78 degrees Fahrenheit affect pikas. Unfortunately, they are as high on the mountain as they can go. Warm temperatures cause them to overheat, and they can die. The changes also

affect the vegetation and reduces snowpack. In addition to that, other animals, who couldn't take the cold, are moving in to the pikas habitat, making things more challenging.

Listen for their call while you're visiting high mountains!

Photos top to bottom: Sky CCBY IDFG, Pika CCBY M. McCraw on Flickr, Pika CCBY Justin Kiner on Flickr, Pika with flowers CCBY from Wikipedia, Pika CCBY Don Owens on Flickr.

LYMX

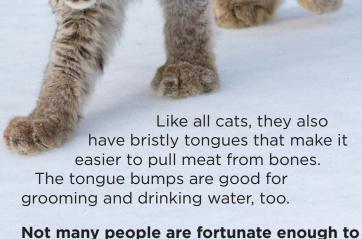
Perhaps the most versatile and well adapted animal in high mountains is one that is rarely seen - the Canada lynx. Sometimes they are called the ghosts of the forest. Their spotted, light-gray camouflaged coats hide them and furry feet allow them to walk silently.

These furry feet are also well adapted for snow. They are large and snowshoe-like. Similar to other animals that live in high elevations their feet enable them to walk on top of snow and keep them safe from sharp and slippery ice. Long legs help them keep balanced pressure on the snow. This helps them to walk on the snow and not fall through it.

Lynx are one of the most adept hunters **known.** Their favorite food, the snowshoe hare, is not easy to catch. Keen eye sight and tufts of hair on their ears allow them to see and hear their prev. The black colored tufts amplify the sound in snowy areas. Their ears are also able to swivel toward the sounds they hear. Sensitive whiskers and night vision help during night hunts. Their whiskers allow lynx to avoid objects in the dark that they might not be able to see. As predators, their eves face forward giving them binocular vision. Studies have shown that lynx don't blink as often as we do. How do you think this would help them?

Razor-sharp claws make capturing prey in dense cover an easier task. Their teeth and jaws allow them to kill prey in one bite. Strong, sharp teeth and claws make consuming the catch easier.

Photos: Canada Lynx CCBY Outward Bound on Flickr, Lynx CCBY Winter Twined on Flickr.



see a lynx in the wild. If you do, you're

one of the lucky ones!



You may have seen what looks like a very large squirrel along roadsides or while hiking in Idaho. These animals are called marmots, and they actually are part of the squirrel family. They are a bit similar to squirrels in our backyard, but they are much bulkier, with short, heavy legs. Marmots we see in lower elevations are called yellowbellied marmots. Hoary marmots are found at higher elevations. They got their name because they have silver-white fur on their shoulders and upper backs. Hoary means something that is grey or white. Marmots are also called whistlers or whistle pigs because of the alarm cry they make.

Like other animals that live high in the mountains, their coats protect them from the cold. Long guard hairs shed rain and block wind. A dense, soft underfur provides warmth. Hoary marmots shed their warm winter coats for lighter coats in early to midsummer.

One of their most important adaptions is that they hibernate. Marmots spend more than half of their life hibernating. This is because the food they eat - leaves, grasses and flowers - is not available during the winter. Marmots eat as much as they can when it is available. Marmots live off of fat

reserves during hibernation. Hoary marmots can go into hibernation weighing about 15 pounds. They come out of their winter dens seven to eight months later weighing around eight pounds. They need to store enough fat to last 200 plus days. Marmots are true hibernators. Their body temperature falls to around 38 to 40 degrees Fahrenheit. Their heartrate drops from 180 to 200 beats-perminute to just 30 beats-per-minute! Each minute they only take between one and two breaths. These traits help to ensure they survive until spring.

Hoary marmots are active from May to September. Besides eating, basking in the sun, and socializing with others in the colony, they keep an eye out for predators. When a predator is near, hoary marmots make a high pitched whistle. This sound warns others that a grizzly bear, lynx or wolverine is prowling nearby.

Marmots have hairless pads on their feet that help them grip and move easily in rocky areas. They also have long, curved claws on their front feet. These help with digging! Studies have found that a marmot hibernaculum (hiber-NAK-u-lum), the place where they hibernate, can be as deep as eleven feet.

Have you ever seen a marmot?

Clark's Nutcracker

Pine trees might come to mind when you think of mountains or forests. Whitebark pine is a tree found high in the mountains that is an Endangered Species. The Clark's nutcracker is a bird that helps these trees to survive. Clark's nutcrackers' main food source is pine seeds. Pine seeds are found in pine cones. Most pine seeds are heavy and wedged firmly in pine cones. They cannot be moved or dispersed by the wind, but Clark's nutcrackers can move the seeds. They have a sturdy bill that is long and sharp. It is perfect for cracking open pine cones. Nutcrackers can store as many as 90 seeds in a pouch behind their tongue. After they have a mouthful, they store the seeds in a cache (cash). The birds move the seeds as far as 15 miles away. They dig a hole in the ground, place the seeds in it, then cover it back up, just like if you were planting a seed! Most of the time they remember where their caches are located, which is often on south-facing slopes. This is because these slopes are often free of snow and it makes it easier to find the stored seeds in the winter. Even six to nine months later they can usually locate their stored seeds, but not always. Sometimes they forget and those seeds become trees!

Caches allow Clark's nutcrackers to live in high elevations year **around.** Pine seeds are the main source of food for adults and young, but the birds are omnivorous. They eat both plants and animals. They will eat nuts, berries, insects, snails, carrion and even the young of other birds.

Clark's nutcrackers are bigger than a jay, but smaller than a **crow.** Their bodies are grey and they have black wings with a few outer feathers that are white and black. The upper side of the tail is black down the center and the undersides are white.

famous Lewis and Clark Expedition. He first thought the bird was a woodpecker because of its beak. Clark was the first person to document and describe the bird for science, so the bird was named after him. He even brought a specimen from Idaho back to Washington D.C.

evergreens that make our high mountains so beautiful!



American Dipper



Can you think of any similarities between a songbird and a fish? Both might be found in rushing high mountain streams. American dippers even eat the same food as a fish! How do they do this? Amazingly, dippers dive into the water or walk along the bottoms of streams gathering insects and insect larva. They also swim on the surface to get floating insects. It's really a sight to see!

Dippers are a grayish brown bird about the size of a robin. Their short tails are held up at an angle. They have white upper eyelids that are noticeable when they blink. If you see a dipper, it might be bobbing or dipping up and down along the stream.

Living close to cold, mountain streams and diving for food requires special adaptations to survive. Dippers have close to 6,000 feathers on their bodies. This is about twice as many as a robin. The feathers are thick to help keep dippers warm and dry. Dippers are also able to carry more oxygen in their blood. This adaptation gives them the ability to stay underwater for 15 to 20 seconds while looking for food. It also means that their bodies do not use energy as fast as other birds, so they don't have to eat as much to stay active.

Dippers' songs are loud; they can be heard over the sound of the rushing water.

The beautiful trills and tinkling sounds carry a long way. Watch and listen for North America's only aquatic songbird while hiking in Idaho's mountains.



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species map found on
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Hiking in Bear Country

You may not see a bear on your trip to the high mountains because they are usually pretty secretive and don't want to be around people. When hiking or camping though, keep in mind the following things. Never hike alone. Let bears know you are there by singing, talking or clapping. When camping, choose a site away from berry patches and

10 ft

trails. Sleep in a dull colored tent. Red, blue and yellow colors might attract bears. Don't let smells from cooking, eating or even your toothpaste get near your tent. Keep your tent a football field away from your cooking area and any food you have. All food should be hung 10 feet from the ground and four feet from a tree. Make sure that you carry a can of bear spray whenever you hike in bear country.

Football field



Football field

Cooking fire

If you do see a bear, keep calm and don't run. Walk slowly backwards and evaluate the situation. Surprise encounters, a mother bear with cubs or a bear defending a food source are circumstances that could make matters more difficult. A calm bear may just be

curious. A bear moving around and drooling may be about to charge. Don't turn your back on the bear. Look at it, but not straight in their eyes. That may signal to the bear that you want to fight! If a bear runs up to you, stand your ground

don't move. Bears will sometimes "bluff charge." This means they will run up to you to see what you'll do.
 If you run, they will chase you. If a bear is within 30

feet, spray it with bear spray. If a bear still comes too close, play dead and lie flat. Cover your neck with your hands and arms. Leave backpacks on for added protection.

Enjoy the wilderness more by knowing how to respond in the unlikely event of a bear encounter.



How can you tell if the bear you saw was a black bear or grizzly bear?

Know where you are. Grizzly bears are mostly found in northern and eastern Idaho. Remember you usually cannot identify a bear by color alone. Their colors vary within the different species. Here's how to identify a bear if you see one while on your hike.

Black Bear

- Color may be black, brown, blond, cinnamon or rust.
- No hump between shoulders.
- · Rump usually higher than shoulders.
- Face has straight profile. Muzzle looks long.
- Ears look long and larger on head.
- Front claws are less than 2 inches long, sharp and curved.
- Weigh between 100 to 300 pounds.
- 2 ½ to 3 feet high at the shoulder and
 5 feet when standing on hind feet

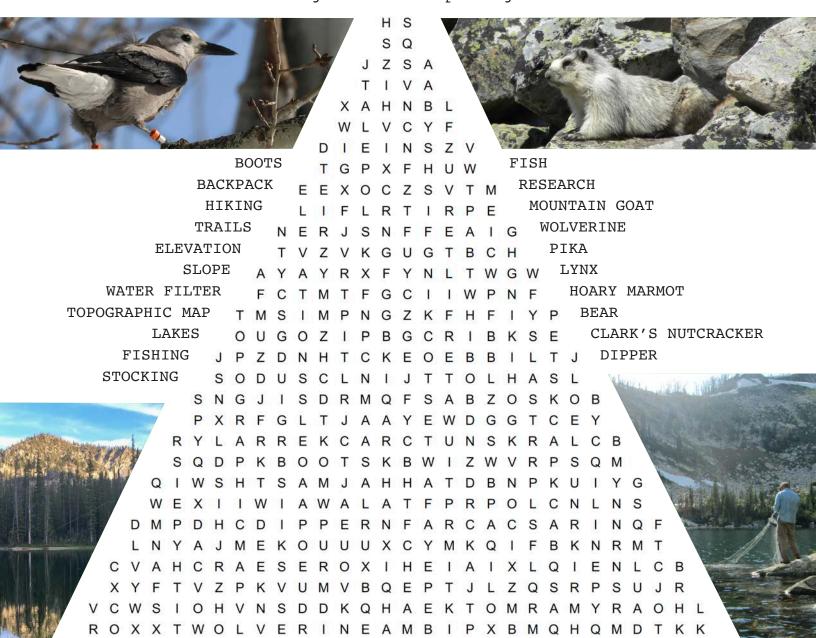
Grizzly Bear

- Color varies from blond to black. Usually has dark-brown legs with light-tipped fur on head, face and across back.
- Large hump between shoulders.
- Shoulders higher than rump.
- Face is usually dished in between the eyes and the end of the nose.
- Ears are round and look small on the head.
- Front claws 2 to 4 inches long, light colored and slightly curved.
- Weigh between 200 to 600 pounds.
- 3 ½ to 4 feet high at the shoulder and 6 to
 7 feet when standing on hind feet.



High Mountain Exploring Find these words associated with

high mountain exploring!



WildifeExpré

Crossword created The Teachers Corner.net Word Search Maker. Photos: Clark's Nutcracker CCBY National Park Service, Hoary Marmot CCBY Freeman on Flickr, Soldier Lake CCBY IDFG, Gill net in alpine lake CCBY IDFG.

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WE WOULD LIKE TO HEAR FROM YOU! If you have a letter, poem or question for Wildlife Express, it may be included in a future issue! Send it to: adare.evans@idfg.idaho.gov

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